

CLAIMS

What is claimed is:

1. A reinforcement bracket capable of being secured to the interior of an electrical box, the electrical box having interior top and interior side regions, the electrical box further having at least one wiring access aperture, said bracket being further securable to a structural member in structural adjacency to the electrical box, said bracket being capable of securing the movement of the electrical box relative to the structural member against the weight of a fixture fastenable to the electrical box, said bracket comprising:

 a top interface providing a mating between said bracket and the interior top region of the electrical box;

 a side interface providing a mating between said bracket and the interior side region of the electrical box;

 a rigid member providing resistance to a compressive force applied between said top interface and said side interface;

 a mating feature for a fastener, said feature including a hole through which a fastener may be inserted, said feature further providing an attachment point for the fastener, said feature oriented in a position relative to said bracket such that the fastener may be installed through the access aperture to secure said bracket to a structural member in structural adjacency to the electrical box; and

 wherein said bracket is formed of zinc plated sheet or plate steel.

2. A reinforcement bracket according to claim 1, wherein the side interface provides a mating against a substantially flat surface.

3. A reinforcement bracket according to claim 1, wherein the side interface provides a mating against a fastener boss.

4. A reinforcement bracket according to claim 1, wherein the side interface provides a mating against a substantially curved surface.

5. A reinforcement bracket according to claim 1, wherein the side interface provides matings against any two of a substantially flat surface, a substantially curved surface, and a fastener boss.
6. A reinforcement bracket according to claim 1, wherein the bracket is adapted to be installed in two different sized electrical boxes.
7. A reinforcement bracket according to claim 6, wherein the bracket is insertable into three and four inch electrical boxes, and includes matings for both.
8. A reinforcement bracket according to claim 1, wherein the bracket is adapted to be installed in two different internally shaped electrical boxes.
9. A reinforcement bracket according to claim 1, wherein the top interface provides a mating against a substantially flat surface.
10. A reinforcement bracket according to claim 1, wherein said mating feature for a fastener is set to position a fastener at about 60 degrees from the vertical for an electrical box mounted to a vertical structural support surface.
11. A reinforcement bracket according to claim 1, wherein said mating feature for a fastener is configured to position a fastener such that a driving force may be directly applied thereto by a tool external to the electrical box.
12. A reinforcement bracket according to claim 1, wherein a downward force on the electrical box is converted partially to a horizontal force vector in the direction of the structural member.
13. A reinforcement bracket according to claim 1, wherein:
 - the electrical box utilizes fastener positioning members that position fasteners in the same plane; and
 - said mating feature for a fastener is set to position a fastener substantially outside that plane.

14. A reinforcement bracket according to claim 1, wherein said mating feature for a fastener may accept a pilotless screw, and further that said mating feature for a fastener is set at an angle that permits the turning of the screw with a straight-shafted screwdriver without angle changing adapters, the handle of the screwdriver being outside the confines of the electrical box.

15. A reinforcement bracket according to claim 1, wherein said rigid member includes a strut-like portion between said top interface and said said interface.

16. A kit for reinforcing a ceiling electrical box containing a reinforcement bracket capable of being secured to the interior of the electrical box, the electrical box having interior top and interior side regions, the electrical box further having at least one wiring access aperture, said bracket being further securable to a structural member in structural adjacency to the electrical box, said bracket being capable of securing the movement of the electrical box relative to the structural member against the weight of a fixture fastenable to the electrical box, said kit comprising:

at least one fastener;

a reinforcement bracket having a top interface providing a mating between said bracket and the interior top region of the electrical box, said bracket further having a side interface providing a mating between said bracket and the interior side region of the electrical box, said bracket additionally including a rigid member providing resistance to a compressive force applied between said top interface and said side interface, said bracket further having a mating feature for said fastener, said feature providing an attachment point for said fastener, said feature oriented in a position relative to said bracket such that said fastener may be installed through the access aperture to secure said bracket to a structural member in structural adjacency to the electrical box, said bracket being formed of zinc plated sheet or plate steel.

17. A kit according to claim 16, wherein said fastener is a pilotless screw.

18. A kit according to claim 16, wherein the rigid member of said reinforcement bracket includes a strut-like portion between the top interface and the said interface of said reinforcement bracket.

19. A method of reinforcing a ceiling electrical box, the electrical box having interior top and interior side regions, the electrical box further having at least one wiring access aperture, the electrical box being secured to a structural member in structural adjacency to the side region of the electrical box, comprising the step of:

inserting a reinforcement bracket into the interior of the electrical box, the bracket having a top interface providing a mating between said bracket and the interior top region of the electrical box, the bracket further having a side interface providing a mating between said bracket and the interior side region of the electrical box, the bracket also having a rigid member providing resistance to a compressive force applied between said top interface and said side interface, the bracket further having a mating feature for a fastener, said feature providing an attachment point for at least one fastener, said feature oriented in a position relative to said bracket such that the fasteners may be installed through the access aperture to secure said bracket to a structural member in structural adjacency to the electrical box, said inserting bringing the bracket into a position wherein the top interface is adjacent to the interior top region of the electrical box and wherein the side interface is adjacent to the interior side region of the electrical box, the bracket being formed of zinc plated sheet or plate steel; and

securing the bracket to the structural member by driving fasteners into the side region of the electrical box and further into the structural member, said securing bringing said fasteners attaching said bracket to the electrical box utilizing the feature providing an attachment point.